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application also claims benefit of foreign priority under 35 U.S.C. § 119 and/or 35 U.S.C. § 365 to Application No. 9319429.8 filed in Great Britain on September 21, 1993; the entire content of which is hereby incorporated by reference.--

In compliance with 37 C.F.R. § 1.823(a), please insert the attached paper copy of the "Sequence Listing" between the last page of the Disclosure (Page 24) and the first page of the claims (page 25).

Please insert the enclosed copy of the Abstract, which is provided on a separate sheet of paper, into the application after the last page of the claims, currently page 32.

Kindly replace the paragraph beginning at page 6, line 11, with the following:

--Figures 12A and 12B show in schematic form the construction of plasmid

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pSM215.

Panel A shows a map of mouse GAD65 cDNA.

Panel B shows a map of expression vector pSM215.--

Kindly replace the paragraphs beginning at page 17, line 16 through page 17, line 37, with the following:

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-- The signal sequence was isolated from barley α -amylase cDNA clone as a PCR product using two synthetic primers. The forward primer (5' -CGGATCCGGCGCG

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CGCCATGGGGAAG - 3') (SEQ ID NO.:1) had a BamHI site added to 5' end to facilitate cloning, and the reverse primer (5' -GGAATTCCCGGGCGCCGGACGCCAAACC CGGCGAG - 3') (SEQ ID NO.:2) contained two engineered restriction sites, EcoR1 and NarI. EcoR1 was used for convenience in subcloning whereas NarI provided a site for fusion. The PCR product was isolated, digested with BamHI and EcoR1, and cloned into pBluscriptII (Stratagene, an E. coli plasmid vector which does not have any NarI site), to form intermediate plasmid pBluscriptII-10.

The DNA fragment encoding the mature peptide sequence (native protein minus signal peptide) of murine II α chain was created by PCR using the following two synthetic primers: 5' - GGGCGCCGAAGACGACATTGAGGCCGAC - 3' (SEQ ID NO.:3) (forward reaction), which contained a compatible NarI site at its 5', and 5' -CGAATT CTCATAAAGGCCCTGGGTGTCT - 3' (SEQ ID NO.:4) (reverse reaction) which had an EcoR1 site attached to the 5' end. The PCR product was rescued as an EcoR1 + NarI fragment.--

Kindly replace the paragraph beginning at page 18, line 10, with the following:

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--pSM156 was constructed by replacing the native signal sequence of I-A β gene with the signal sequence of barley α -amylase (Figure 2). The strategy employed was essentially the same as for the construction of pSM155. Two primers were used for the isolation of mature β gene coding sequence: 5' -GGGCGCCGAAGACGACATTG

Q4 cont AGGCCGAC - 3' (SEQ ID NO.:5) (forward primer) and 5'-CGAATTCTCATAAAG
GCCCTGGGTGTCT - 3' (SEQ ID NO.:6) (reverse primer).--

Kindly replace the paragraph beginning at page 18, line 20, with the following:

--CONSTRUCTION OF pSM151-del: pSM151-del contains the truncated form of

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I-A α gene in which its DNA sequence determining the C-terminal cytoplasmic domain, was deleted, as in Figure 1. This was obtained by polymerase chain reaction-mediated amplification after a 1.1kb EcoR1 fragment was cloned into pUC19. The M13/PUC universal primer (5' - GTAAAACGACGGCCAGT-3') (SEQ ID NO.:7) is used as a forward primer. The reverse primer (5' -CGAATTCTCACAGGCCTTGAATGAT GAAGAT-3') (SEQ ID NO.:8) corresponding to I-A α encoding sequence between nucleotides 715 and 732, introduces a termination codon TGA starting at nucleotide position 733, followed by an EcoR1 cloning site. The truncated gene was amplified by 25 cycles of heating (94°C, 1min), annealing (55°C, 1.5min), and extension (72°C, 2min). The reaction product was purified, digested with EcoR1, blunt-ended with Klenow fragment, and first inserted into pSM150, and then the whole expression cassette was reisolated as a EcoR1 and HindIII fragment and subcloned into pBIN19 to give pSM151-del (Figure 2).--

Kindly replace the paragraph beginning at page 19, line 3, with the following:

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--CONSTRUCTION OF pSM152-del: pSMA152-del contains the truncated I-A β gene which has its DNA sequence determining the C-terminal cytoplasmic domain removed (Figure 2). This was accomplished essentially by the same procedure as used to construct PSM151-del. The M13/pUC universal primer was used as a forward primer. The reverse primer (5' - CGAATTCTCAGATGAAAAGGCCAAGCCCGAG-3') (SEQ ID NO.:9) which is complementary to the nucleotide sequence of I-A β gene at positions 715 and 735, introduced a TGA stop codon after nucleotide 715, followed by the same EcoR1 cloning site.--

Kindly replace the paragraph beginning at page 22, line 17, with the following:

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--A plasmid expression vector, pSM215, was constructed as shown in Figure 12. A NcoI restriction site as indicated in Panel A was created by site-directed mutagenesis and used as part of a translational start site. Site-directed mutagenesis was done using the reaction kit purchased from Pharmacia following manufacturer's instructions. The primer used was 5' - GACCACCGAGCCATGGCATCTTC-3' (SEQ ID NO.:10) which includes a new NcoI restriction site. The modified murine DNA was cloned into plasmid pSM150. The translation start (ATG) and stop (TGA) sites are indicated. This GAD cDNA was inserted between the cauliflower mosaic virus 35S promoter, Ehn 35S, and the transcription termination sequence of nopaline synthase (NOS-ter).--
